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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/019,962	01/07/2002	Mika Perala	3501-1001	6257
466	7590	05/25/2004	EXAMINER	
YOUNG & THOMPSON 745 SOUTH 23RD STREET 2ND FLOOR ARLINGTON, VA 22202			ROBERTSON, JEFFREY	
		ART UNIT		PAPER NUMBER
		1712		

DATE MAILED: 05/25/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

N/

<b>Office Action Summary</b>	<b>Application No.</b>	<b>Applicant(s)</b>
	10/019,962	PERALA ET AL.
	<b>Examiner</b> Jeffrey B. Robertson	<b>Art Unit</b> 1712

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

#### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) Responsive to communication(s) filed on 12 March 2004.
- 2a) This action is **FINAL**.                  2b) This action is non-final.
- 3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) Claim(s) 1-12 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) Claim(s) \_\_\_\_\_ is/are allowed.
- 6) Claim(s) 1-7, 9, 10 and 12 is/are rejected.
- 7) Claim(s) 1-12 is/are objected to.
- 8) Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) The specification is objected to by the Examiner.
- 10) The drawing(s) filed on \_\_\_\_\_ is/are: a) accepted or b) objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) The proposed drawing correction filed on \_\_\_\_\_ is: a) approved b) disapproved by the Examiner.  
If approved, corrected drawings are required in reply to this Office action.
- 12) The oath or declaration is objected to by the Examiner.

#### Priority under 35 U.S.C. §§ 119 and 120

- 13) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) All    b) Some \* c) None of:
1. Certified copies of the priority documents have been received.
2. Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.
- 14) Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) The translation of the foreign language provisional application has been received.
- 15) Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

#### Attachment(s)

- |  |   |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)                               | 4) <input checked="" type="checkbox"/> Interview Summary (PTO-413) Paper No(s). <u>0104</u> . |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)           | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)                   |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____ . | 6) <input type="checkbox"/> Other: _____ .  |

## DETAILED ACTION

### ***Claim Objections***

1. Claims 1-12 are objected to because of the following informalities: for claim 1, the claims refer to the molecular weight while the specification refers to molar mass. This inconsistency should be corrected. Appropriate correction is required.

### ***Claim Rejections - 35 USC § 102***

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

3. Claims 1, 2, 9, 10, and 12 are rejected under 35 U.S.C. 102(b) as being anticipated by Gasmena (U.S. Patent No. 5,703,178).

For claim 1, in column 2, lines 43-50, Gasmena teaches coatings that contain an epoxy resin, an epoxy silane, a siloxane, and optionally a pigment. In column 6, lines 22-26, Gasmena teaches that the epoxy resin may be an aliphatic epoxy resin. In column 2, lines 34-36, Gasmena teaches that the epoxy resin makes up 1-20% by weight of the composition. For claims 1, 9, and 10, in column 3, lines 38-65, Gasmena teaches the addition of an epoxy functional silane and specifically mentions glycidyloxypropyltrimethoxysilane as preferred example. In column 4, lines 1-5, Gasmena teaches that the epoxy silane is present in an amount of 0.5 to 5 % of the

composition. In column 4, lines 16-40, Gasmena teaches the addition of a polysiloxane that has a molecular weight of 500 to 3500, which significantly overlaps with applicant's molecular weight. Applicant's R<sub>1</sub> and R<sub>2</sub> significantly overlap with Gasmena's R<sub>3</sub> and R<sub>4</sub>. In column 4, lines 50-52, Gasmena teaches that the amount of polysiloxane in the coating is from 0.5 to 5 %.

For claim 2, the amounts of the components set forth by Gasmena result in ratios that fall within applicant's claimed range.

For claim 12, in column 9, lines 50-62, Gasmena teaches a two-part kit where the composition is placed in a first container, and an amine hardener is placed along with other additives in a second container.

#### ***Claim Rejections - 35 USC § 103***

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. Claims 3-5 are rejected under 35 U.S.C. 103(a) as being unpatentable over Gasmena (U.S. Patent No. 5,703,178) as applied to claim 1 above, and further in view of Eklund et al. (U.S. Patent no. 6,180,726).

For claims 3-5, Gasmena teaches the limitations of claim 1 as detailed above. Although Gasmena teaches aliphatic glycidal epoxy resins, Gasmena does not teach the polyglycidyl ether of pentaerythritol as set forth in claim 5, which would also satisfy the limitations of claims 3 and 4.

In column 2, lines 45-64, Eklund teaches coatings containing epoxy resins. In column 8, lines 55-63, Eklund teaches that pigments may be added to the coating compositions thus forming a paint. In column 6, lines 44-46, Eklund teaches the use of aliphatic epoxy resins such as pentaerythritol polyglycidyl ether.

Eklund and Gasmene are analogous art in that they both teach the use of epoxy resins in paint compositions that also contain silicone components. It would have been obvious to one of ordinary skill in the art at the time of the invention to use pentaerythritol polyglycidyl ether as the aliphatic glycidal epoxy resin. The motivation would have been that Gasmene provides the express suggestion to use this type of an epoxy resin. One of ordinary skill in the art would have looked to Eklund to provide specific examples of such resins.

6. Claims 3, 4, 6, and 7 are rejected under 35 U.S.C. 103(a) as being unpatentable over Gasmene (U.S. Patent No. 5,703,178) as applied to claim 1 above, and further in view of Iwamura et al. (U.S. Patent no. 5,705,567).

For claims 4 and 5, Gasmene teaches the limitations of claims 1 and 3 as detailed above. Although Gasmene teaches aliphatic glycidal epoxy resins, Gasmene does not teach the triglycidyl ether of glycerine or neopentyl glycol diglycidyl ether as set forth in claims 6 and 7, which would also satisfy the limitations of claims 3 and 4.

In column 1, lines 10-31, Iwamura teaches paints containing epoxy resins. In column 10, lines 26-38, Iwamura teaches the use of aliphatic epoxy resins such as triglycidyl ether of glycerine or neopentyl glycol diglycidyl ether.

Iwamura and Gasmena are analogous art in that they both teach the use of epoxy resins in paint compositions that also contain silicone components. It would have been obvious to one of ordinary skill in the art at the time of the invention to use triglycidyl ether of glycerine or neopentyl glycol diglycidyl ether as the aliphatic glycidal epoxy resins. The motivation would have been that Gasmena provides the express suggestion to use these types of epoxy resins. One of ordinary skill in the art would have looked to Iwamura to provide specific examples of such resins.

***Allowable Subject Matter***

7. Claims 8 and 11 would be allowable if rewritten to overcome the claim objections set forth in this Office action and to include all of the limitations of the base claim and any intervening claims. The applied art does not teach or suggest the specific aliphatic epoxy resin of claim 8 or the specific epoxy silane of claim 11 used in compositions containing a polysiloxane and an epoxy silane.

***Response to Arguments***

8. Applicant's arguments filed 6/4/03 have been fully considered but they are not persuasive. Regarding the molecular weight issue, since Mowrer et al. (U.S. Patent No. 5,618,860) corresponding to WO 96/161109 contains similar language in the claims to the language present in the present claims, the examiner has withdrawn the rejection made under 35 U.S.C. §112, 1<sup>st</sup> paragraph. The examiner notes that since the claims were not amended, there is a discrepancy between the specification and the claims regarding the terms "molar mass" and "molecular weight".

Applicant also argues the rejection of claims 1, 2, 9, 10, and 12 as being anticipated by the Gasmena reference. Applicant argues that Gasmena teaches a coating composition that fails to explicitly recite applicant's claimed composition. Applicant points out that Gasmena requires the presence of a siloxane-containing polyether and that this component does not correspond to the polysiloxane claimed by applicant. In response, the examiner disagrees with applicant's assessment of the prior art. As detailed above, Gasmena teaches coatings that contain an epoxy resin, an epoxy silane, a siloxane, and optionally a pigment. While the examiner acknowledges that Gasmena requires the presence of additional ingredients not set forth by applicant in the claims, the examiner notes that applicant has used the term "comprising" as a transitional phrase in claim 1. This allows for the presence of other components in the composition, such as siloxane-containing polyethers. The examiner is not relying on the teaching of siloxane-containing polyethers as the polysiloxane component ii) claimed by applicant. Rather, as set forth in the rejection above, it is the siloxane ingredient (b) set forth by Gamen in column 4, lines 16-40 that corresponds to applicant's component ii). For these reasons, it is the examiner's position that Gasmena does anticipate the claimed invention. As a result, it is the examiner's position that applicant's arguments with respect to claims 1, 2, 9, 10, and 12 as being non-obvious over Gasmena are irrelevant. In addition, applicant is not claiming any unexpected or improved properties.

Applicant argues the rejection of claims 3-5 made under 35 U.S.C. 103(a) as being unpatentable over Gasmena in view of Eklund et al. and the rejection of claims 3, 4, 6, and 7 made under 35 U.S.C. 103(a) as being unpatentable over Gasmena in view

of Iwamura et al. Applicant argues that there is no motivation to combine these references. The examiner disagrees. As set forth above, both the Gasmeca and Eklund et al. patents teach paint compositions that contain epoxy resins and silicone components. Although Eklund does not teach the use of an epoxy silane, the compositions are very similar. The fact that Eklund uses an anhydride component would not deter one of ordinary skill in the art from consulting Eklund for epoxy resins that are conventionally used in the epoxy paint art. As set forth in the rejection above, the motivation for combining these references is based on the direction provided by Gasmeca to use glycidal-type epoxy resins in the composition, directing one of ordinary skill in the art to consult other references to determine suitable epoxy resins fitting this description that are used in paint compositions.

As set forth above, both the Gasmeca and Iwamura et al. patents teach paint compositions that contain epoxy resins and silicone components. Although Iwamura does not teach the use of an epoxy silane, the compositions are similar. The fact that Iwamura uses an acrylic oligomer having blocked hydroxyl groups would not deter one of ordinary skill in the art from consulting Iwamura for epoxy resins that are conventionally used in the epoxy paint art, especially since the hydroxyl groups are blocked with siloxy components. As set forth in the rejection above, the motivation for combining these references is based on the direction provided by Gasmeca to use glycidal-type epoxy resins in the composition. This would motivate one of ordinary skill in the art to consult other references to determine suitable epoxy resins fitting this description that are used in paint compositions.

Therefore the rejections made under 35 U.S.C. 103(a) over Gasmena in view of Eklund et al. and Gasmena in view of Iwamura et al. are continued.

The rejections made using the Kuriyama et al. reference have been withdrawn based on applicant's arguments.

***Conclusion***

9. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

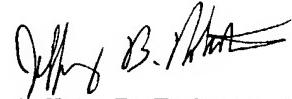
Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jeffrey B. Robertson whose telephone number is (571) 272-1092. The examiner can normally be reached on Mon-Fri 7:00-3:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Vasu Jagannathan can be reached on (571) 272-1119. The fax phone

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number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Jeffrey B. Robertson  
Primary Examiner  
Art Unit 1712

JBR